

MARSHALL ISLANDS RADIOPHYSICAL SAFETY PROGRAM
FIELD TRIPS 1974-1981

I. Dose Assessment-Environmental Food Chain Surveillance

4/74 - Greenhouse, Ash, Nelson - Utirik, Rongelap, Bikini

Orientation Field Trip (with Medical)

-External radiation measurements

-Sampling groundwater, soil, plants, fish, coconut crabs

12/74- Greenhouse, Nelson - Rongerik, Bikini

-External radiation measurements

-Sampling Fish

4/75 - Greenhouse, Williams, Reilly, Davis, Nelson - Bikini (Enue)

-External radiation levels

-Soil and vegetation (also Wotho, Kwajalein)

Guidance on Siting of Second Increment of Housing

6-7/75-Greenhouse, LLL, UWLRE, EPA - Multiagency - Bikini (Enue)

-Soil, groundwater and vegetation (to UW)

Guidance on Siting of Second Increment of Housing

11/12/75-Greenhouse, Nelson - Majuro, Ponape, Truk, Guam, Polau

Regional Radiological Background Study

3-4/76-Greenhouse, Naidu, Kuehner, Haughey, Terpilak - Bikini (Enue)

Followup of Previous Study

- β - γ dose rates

-Soil and vegetation

9/76 - Greenhouse, Nelson with Medical - Wotje, Ailuk, Utirik,

Rongelap, Bikini

-Environmental surveys

II. Augmented Program: Pu Air Sampling, Residency, Dose Assessment,

Diet and Life Style Study

1-2/77-Naidu - Rongelap

-Residency, effects of radiation on men

4-5/77-Greenhouse, Levine, Miltenberger - Utirik, Rongelap, Bikini,
Kwajalein

-Site planning, wind-powered generators and air samplers,
also conventional, Kwajalein-Pu excretion sampling

10/77 - Greenhouse, Levine, Dillingham, DeAngelis, Cua - Utirik, Rongelap,
Bikini, Kwajalein

-Installation of windmills
-Large volume urine sampling collection

10/77 - Miltenberger, Cohn, Rothman, Clareus, WBC - Japtan

-WBC-Japtan Marshallese (unsuccessful)
-WBC-Enewetak (Holmes and Narver employees)

1/78 - Balsamo, Sherwin - Bikini, Rongelap, Utirik

-Complete installation of wind generators and repairs

3-4/78 - Miltenberger, Lessard, Naidu - Rongelap, Utirik, Bikini

-Collect urine, soil, vegetation and fish
-5 Day Hi-Vol Air Sampling
-Residency-Utirik (Naidu)
-WBC, urine, vegetation, local foods

9/78 - Greenhouse - Nor Marshall Islands Radiological Survey

- 1/79 - Miltenberger, Greenhouse, Craighead - Majuro (former Bikinian)
-WBC (of 64 former Bikinians), 49 urine samples; 37 Majuro residents
-Complete Pacific Basin Study (UWLRS)
- 5/79 - Miltenberger, Lessard - Majuro, Kili (former Bikinian)
-WBC (of 79 former Bikinians, 50 Kili)
- 8-9/79-Miltenberger, Lessard, Balsamo, Hunt, Dillingham, Sherwin, Rademacher -
Kwajalein, Rongelap, Utirik
-Reestablish air samplers, Kwajalein, Rongela, Utirik
-WBC 150 persons (Rongelap, Utirik)
-Environmental Monitoring (EM), Rongelap, and Utirik
-146 urines
-local foods
- 2/80 - Miltenberger, Levine, Greenhouse, Manalastas - Japtan, Enewetak
Ujelang - Baseline data, prior to repatriation
-WBC 400
-Urine samples (400)
- 7-8/80-Greenhouse, Moorthy, Wells Rivera - Majuro, Kili
-WBC (200 persons)
-urine (100 persons)
- 1-2/81-Miltenberger, Roesler, Bennett - Enewetak
-WBC
-x-ray machine survey

WBC - whole body counting

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MARSHALL ISLAND RADIOLOGICAL SAFETY PROGRAM

Environmental Sampling

	<u>Water</u>	<u>Vegetation</u>	<u>Soil</u>	<u>Animal</u>	
1955			7	Crabs - R	
1956			7	" "	
1957			2	Coconut Crabs - R	
1958		.	2	" " "	"
1961			?	" "	"
1962			3	" "	"
1964			3	" "	"
1965			1	" "	"
1969			2	" "	"
1972			2	" "	"
1973			3	" "	"
4/74	-	50	-	3	" "
12/74	-	-	-	25	
6/75	-	120	130	2	
4/76	30	100	130	-	
4/78	2	50	-	-	
8/79	2	50	-	10	
8/81		*	*		

R - Rongelap

* Planned R & U

U - Utirik

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Marshall Islands Radiological Safety Program

— Scientific & Professional Staff

Program Directors

MIRSP

1974 - Sept 1980 Nathaniel Greenhouse

Sept 1980 - Present Edward T. Lessard

(Dose Reassessment)

1978 - Sept 1980 Janakiram R. Naidu & Nathaniel Greenhouse

Sept 1980 - Present Janakiram R. Naidu & Edward T. Lessard

Principal Support Staff

1974 - 1975 Frances J. Haughey

1976 - Present Janakiram R. Naidu

1977 - Present Robert P. Miltenberger (WBC, Data basis)

1979 - Present Edward T. Lessard

Part-Time Staff

1978 - 1980 Florence Cua

1978 - 1980 Jerry Knight

Adjunct Staff

1974 - Present Andrew P. Hull

Rongelap & Utirik

Dose Reassessment (DBER)

(Part-Time)

1978 - Sept 1980 Nathaniel Greenhouse

1978 - Present Janakiram R. Naidu

1979 - Present Edward T. Lessard

Consultants

8/78 Charles Sondhaus (UCCM)

Diet and Living Pattern Study

(LLL, DOE)

9/78 Janakiram R. Naidu
Evelyn Craighead
Nathaniel Greenhouse

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Marshall Islands Radiological Safety Program

<u>FY</u>	Person-Years <u>Sci - Prof</u>	<u>Other</u>	Budget	
			Scientific Prog (\$1,000)	Capital (\$1,000)
1975	1.5	1.0	\$125	20
1976 (inc Trans 8)	2.0	1.0	172	20
1977	2.0	1.25	207	80
1978	2.5	2.5	207 + +50 (RUDR)	10
1979	3.4	1.6	281 +50 (RUDR)	25
1980	3.8	2.2	351 +50 (RUDR)	50
1981	3.4	3.1	415 -30 <u>385</u> +50 (RUDR)	5

Marshall Islands Radiological Safety Program

Major Capital Equipment Acquisitions

- FY 1975 Computer Based Multi-channel (and Ge-Li)
- 1976 Portable γ Spectrometer, two Reuter-Stokes RS-111
- 1977 Wind powered generators (air sampling), three multi-channel analyzers, (two NaI detectors)
- 1978 Peripherals alpha spectrometry (Pu)
- 1979 Davidson multi-channel, tower extension for windmills
- 1980 Computer based, multi-channel P.H.S.

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